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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,254	11/10/2003	Paul J. Campagnola	UCT-0036	3199
23413	7590	08/01/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			HAMILTON, CYNTHIA	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,254

Applicant(s)

CAMPAGNOLA ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/2/05, 4/20/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

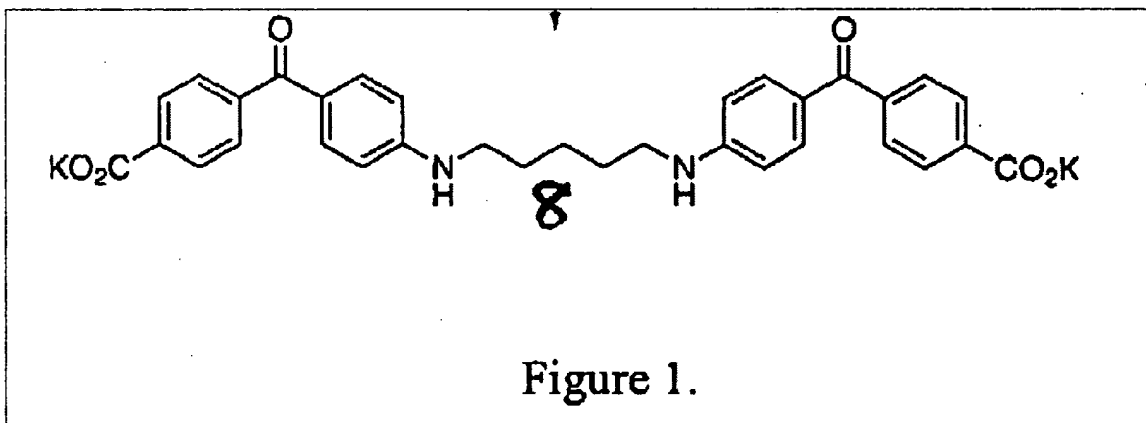
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/2/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of Group I, claims 1-11 and 14/1 in the reply filed on April 20, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as *an election without traverse* (MPEP § 818.03(a)). Applicants elected as a species for Group I, the photoactivatable crosslinker, the crosslinker shown in Figure 1 (compound 8) wherein the photoactive groups is an acid salt-substituted benzophenone, the linkers are amines and the bridging moiety is a saturated, unsubstituted C₅ alkyl chain and the molecule being crosslinked in the method as collagen. The compound 8 is shown below:



Applicants make of record that the elected species reads on claims 1-5 and 7-11.

Applicants in their response of April 20, 2005 made no traverse of the requirement for election of species.

2. The information disclosure statement filed May 2, 2009 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because US Patent No. 6,300 602 B1 has a first inventor other than Kannan et al. Thus, there is an inconsistency between number and name. This reference has been struck from the PTO-1449 because of this and

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but the information referred to therein has not been considered as to the merits.

Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

3. Claims 1-5, 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The specification does not make clear what point volume is meant by "point volume of the activation". Is this the point volume generated by the imaging system as in Campagnola (Macromolecules 2000) at 1000 nm, i.e. as in second column last quadrant or is this the point volume of the crosslinked area generated by the imaging source as in 500 nm in Conclusions on page 1513 of Campagnola? It is unclear from the specification whether the final product has an image feature with a crosslinked point volume of "less than about 1 micron" or that the source of irradiation forms a point volume of activation at "less than about 1 micron". This is key to understanding what is encompassed by the instant invention. Is the limit to the imaging source or to the final product dimension dependent upon the composition used? Thus, claims 1-5 and 7-11 set forth a method that is found confusing. The limitations of the method are not clear at this point. The examiner notes that she has considered both interpretations in the examination of the elected invention and species.

4. The examiner is tasked in examination to use the "broadest reasonable interpretation consistent with the specification" of the claim language. In re Hyatt, 211

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F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). See particularly MPEP 2111.

The examiner is also tasked during examination with respect to the claims to interpret as broadly as their terms reasonably allow. In re American Academy of Science Tech Center, 2004 WL 1067528 (Fed. Cir. May 13, 2004). The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. b. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). The examiner notes the following from applicant's original specification with respect to the examination of the claims:

- a. In [0010], "Suitable" is taken to mean the same as "preferable" thus, this paragraph does not limit the claim language in any manner because the examiner has taken this paragraph to describe a preferred sub genus of crosslinkers found preferable in the genus claimed.
- b. In [0011], applicants define "substantially water-soluble" as "having sufficient solubility in water to provide effective crosslinking upon exposure to single- or multi-photon irradiation." This is taken as a limitation of this language used in claim 3 of the examined claims. The examiner notes that "effective" here is considered to be in reference to "wherein the point volume of the activation has at least one dimension of less than about 1 micron" when photoactivating with respect to the instant method under examination. The examiner notes that the limit of claim 3 is that the photoactivatable crosslinker is substantially water-soluble. There is no limit to the presence of water anywhere in the method

claimed therein. The limit is to the inherent property of the photoactivatable crosslinker used in the method.

c. The examiner notes paragraph [0020] from applicant's specification wherein the definition of "aqueous solutions" are inclusive of acidic, basic, neutral solutions and aqueous solution comprising miscible non-aqueous solvents such as methanol, ethanol, or acetone in amounts up to about 20 percent by volume.

There is no limit set by this "inclusive" statement. The examiner finds no limit to what can be in the aqueous solution as long as it remains a solution and aqueous for examination purposes. This "inclusion" does not exclude other non-aqueous solvents such as dimethylsulfoxide, for example, for examination purposes.

d. The examiner notes that paragraph [0020] as shown below also makes clear that "derivatized and synthetic variations" of the examples of molecules to be crosslinked are included.

[0020] The photoactive crosslinkers as described above may be used to crosslink a variety of water-soluble molecules useful in tissue engineering, wherein such molecules are soluble in acidic, basic, or neutral aqueous solutions. Aqueous solutions as used herein includes solutions comprising miscible non-aqueous solvents such as methanol, ethanol, or acetone, in amounts of up to about 20 percent by volume. Crosslinking may occur within a single molecule and/or between two molecules. Suitable molecules include amino acids, peptides, oligopeptides, and proteins, including enzymes, myosin, collagen, and the like; fatty acids and lipids; ribonucleic acids, deoxyribonucleic acids, and oligomers and polymers thereof; and saccharides, polysaccharides, glycosaminoglycans, and mixtures comprising at least one of the foregoing molecules.

Various bioactive agents such as cytokines, hormones, receptors, growth factors, and drugs; optically active synthetic agents (including inorganic compounds); and optically active biocompounds such as caged compounds and fluorophores may also be crosslinked. These molecules are not readily amenable to existing methods of nanofabrication, as they are often only sensitive to UV light, and must be reacted in solution, problems which are solved by the present method. Derivatized and synthetic variations of the foregoing molecules may also be used, as well as plant-derived materials such as cellulose.

The examiner notes that [0021] does not for examination purposes limit the instant method in any manner because applicants make extensive use of "may be" making no clear statement that all claimed methods are defined to have the limits set forth by [0021].

From MPEP 2111.03 (May 2004 revision) the following is noted:

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The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) ("The transition 'comprising' in a method claim indicates that the claim is open-ended and allows for additional steps."); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Molculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of unspecified ingredients even in major amounts").

The examiner notes that applicants make clear the method can be performed on solutions, absorbed substrates, suspensions or emulsions without limiting the method to these reaction sites in any manner.

e. The examiner notes at [0022] applicants incorporate in reference the following:

i. In [0022], "Practical realization of two photon laser scanning microscopy is described by W. Denk, J.H. Strickler, and W.W. Webb in Science, Vol. 248, p. 73 (1990), which is incorporated herein by reference."

ii. In [0022],

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Other uses and descriptions of two-photon excitation are further described by O. Nakamura in Optik, Vol. 93, p. 39 et seq. (1993); by O. Nakamura and T. Okada in Optik, Vol. 100, p. 167 et seq. (1995); by E. S. Wu, J. H. Strickler, W. R. Harrell, and W. Webb in Proc. SPIE, Vol. 1398, p. 107 et seq. (1990) and in U.S. Patent No. 5,289,407 to Strickler and Webb; and by Watanabe, M. Okawa, T. Ukachi, F. Kurihara, and H. Harimaya, In Proceedings of RadTech Asia 1993, p. 462, published by RadTech, Japan (1993), the relevant portions of which preceding references are also incorporated

by reference herein. A Light Source Smaller Than the Optical Wavelength by K. Liebermann, S. Harush, A. Lewis, and R. Kopelman, Science, Vol. 247, pp. 61 (1990) is further incorporated by reference herein.

The examiner notes for the record that only the "relevant portions" are incorporated by reference when applicants so state. Incorporation by reference of essential material is only allowed from these references to US Patent No.

5,289,407. See particularly 37 CFR 1.57(f).

f. The examiner notes [0042] from applicant's specification with respect to how broad applicants want their claimed invention to be. See [0042] below:

[0042] While the invention has been described with reference to exemplary embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed as the best mode contemplated for carrying out this invention.

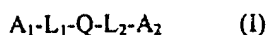
5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The first few lines of claim 8 are as follows:

8. (Original) The method of claim 1, wherein the photoactivatable crosslinker has the structure (I)



wherein A_1 and A_2 are the same or different, and are $-(R)_m-N=N-(R)_m-$,

The $-(R)_m-N=N-(R)_m-$ has two valences the end groups of A_1 and A_2 are monovalent groups. It is not clear what is meant by crosslinker has the structure if end groups of A_1 and A_2 are not end groups on the structure of a crosslinker set forth. All other structures show a sickle shape on the structure that the examiner has assumed is the monovalent attachment point of end groups of A_1 and A_2 to L_1 and L_2 , respectively.

7. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The wording in claim 8, "... wherein one A_1 , A_2 and/or Q " is confusing because it is not clear to what is meant. Is this "one A_1 and A_2 and Q " as well as one " A_1 or A_2 or Q "? Is the meaning of this wording that one of these three variables is an acid or acid salt as well as one of each of these three variables being an acid or acid salt? Does the "and/or" reference only Q ? The examiner did not find this wording of claim 10 in the original specification. She could not determine what was intended here. Is the wording to include the structure wherein an acid is on A_1 and A_2 and Q and the structure wherein A_1 and A_1 do not have one of an acid or acid salt present but only Q

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has the one of an acid or acid salt? The use of “and/or” here is confusing. The examiner has examined the claims in view of this broadest reasonable interpretation of “and/or” language.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Vallee et al (6,008,265). With respect to instant claims 1 and 4, the method of Example 16 of Vallee et al anticipates the instant genus wherein the photoactivatable crosslinker has multiple iodonium salt groups and the molecules being crosslinked are poly (hydroxystyrene-c-styrene with the thickness and order of resolution upon exposure is 0.5 μm , i.e. 0.5 microns. This is evidence of a point volume of at least one dimension of less than about 1 micron being used to image via the interferential mask with KrF laser in the method of Vallee et al.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (4,503,140). With respect to claim 1, the method of Wright et al in Examples 23-25, exemplifying Embodiment 4 teach a species of the instant method with the exception of

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of requiring the point volume of the activation having at least one dimension of less than about 1 micron. However, Wright et al in column 11, lines 16-23, teach that the coatings of their invention can be as thin as 0.01 μm , i.e. 0.01 micron and disclose in lines 36-44, disclose the use of suitable radiation for the crosslinking. Thus, because the layer of Wright et al can have a thickness within the range set for the instant point volume activation, i.e. at least one dimension less than about 1 micron, then the exposure of the entire thickness of the thinnest layers of Wright would have made prima facie obvious the instant method of applicant's claim 1.

12. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Yang et al (SPIE) as optionally evidenced by **Dean (Lange's Handbook of Chemistry (15th ed.))**. With respect to instant claim 1, the method of Yang et al wherein the composition of 15-20wt% of 3,3'-diazidobenzophenone or 3,3'-diazidophenyl sulfone in m-cresol formaldehyde novolac resin is used to resolve 0.75 μ and 1.0 μ line-space patterns as pointed out on page 120 under Resolution and Process Latitude and thus anticipate the instant method. The formation of such small lines in the negative resist by filtering during exposure to UV is indication that activation with a point volume of less than about 1 micron, i.e. 1 μ , occurred during formation. With respect to instant claim 2, the phenyl group in the diazidophenyl sulfone group is held as a chromophore as evidenced by Dean in Table 7.9 listing Benzene as a chromophore. Thus, 3,3'-diazidophenyl sulfone is held to be a chromophore-substituted azide as required by one species of photoactive groups set forth in instant claim 1. Thus, the same method as set forth in Yang et al for instant claim 1 is found to anticipate the instant method of claim 2. The examiner notes that several definitions are known in the related arts for chromophore. The examiner is tasked

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in examination to use the “broadest reasonable interpretation consistent with the specification” of the claim language. In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). See particularly MPEP 2111. The examiner is also tasked during examination with respect to the claims to interpret as broadly as their terms reasonably allow. In re American Academy of Science Tech Center, 2004 WL 1067528 (Fed. Cir. May 13, 2004). The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. b. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004).

13. The examiner notes for the record the following definitions of “chromophore”:

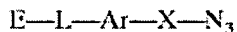
From Concise Encyclopedia of Plastics: “molecule, chromophore A molecule or portion of molecule that can absorb light.”

From Hawley’s Condensed Chemical Dictionary, 14th ed: “chromophore A chemical grouping that when present in an aromatic compound (the chromogen), gives color to the compound by causing a displacement of, or appearance of absorbent band in the visible spectrum.”

From Dean (Lange’s Handbook of Chemistry (15th ed.): “...chromophores (absorbing groups) absorb light...”.

From Rajagopalan et al (US 2002/0169107 A1):

[0013] The present invention discloses novel, organic azide derivatives and their bioconjugates for phototherapy of tumors and other lesions. More specifically, the present invention discloses organic azide compounds having the formula:



[0014] N_3 is the azide moiety that produces nitrene upon photoactivation. Ar is a chromophore that undergoes sensitization. This chromophore (Ar) is an aromatic or a heteroaromatic radical derived from the group consisting of benzenes, polyfluorobenzenes, naphthalenes, naphthoquinones, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidazoles, pyrazoles, pyrazines, purines, benzimidazoles, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones, flavones, coumarins, and anthacylines. E

and

BACKGROUND OF THE INVENTION

[0002] The use of visible and near-infrared (NIR) light in clinical practice is growing rapidly. Compounds absorbing or emitting light in the visible or near infrared (NIR), or long-wavelength (UV-A, >350 nm) region of the electromagnetic spectrum are potentially useful for optical tomographic imaging, endoscopic visualization, and phototherapy. However, a major advantage of biomedical optics lies in its therapeutic potential. Phototherapy has been demonstrated to be a safe and effective procedure for the treatment of various surface lesions, both external and internal. Its efficacy is akin to radiotherapy, but without the harmful radiotoxicity to critical non-target organs.

Thus, the

sensitization in UV, visible and IR wavelengths of light are held in the related arts

as to reference the absorbance range covered by the use of "chromophore".

Thus, the examiner must choose the broadest reasonable definition for examination purposes that with respect to benzene is found in Dean.

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14. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodman et al (WO (99/54784). Goodman et al teach on page 4, the formation of activated volumes of less than 150 nm in one direction. These are inclusive of crosslinking materials as set forth at the bottom of page 9, and bottom of page 11. With respect to instant claims 1-2, the use of the biarylazide systems are taught by Goodman et al on page 15 to be of use in their imaging systems making the use of chromophoric substituted diazides as crosslinkers in such methods *prima facie* obvious as suitable.

15. Claims 6 and 12-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 20, 2005.

16. Claim 1, 3, 7 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nomura et al (4,131,466). With respect to instant claims 1, 3, 7 and 11, Nomura et al in col. 3 disclose a water soluble crosslinking system which is a species of the instant composition wherein a layer of 1 micron thick is imaged thus it is "less than about 1 micron" with respect to one dimension of the volume activated by irradiation. Wherein 1 micron is within this instant range the method of Nomura et al anticipates the instant method. Wherein it is not, then the method of Nomura et al make *prima facie* obvious the instant method of these claims because Nomura et al in col. 10, lines 5-15 teach forming thicknesses from 0.5 micron to 12 microns for these photoinsolubilizable layers, crosslinkable layers as taught in the first two lines of col. 9. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541

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F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 UAPQ2d 1934 (Fed. Cir. 1990). See particularly MPEP 2144.05.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Everaerts et al disclose radiation crosslinkers for inks, sealants photoresists, etc without disclosure of the need for an point volume of activation as set forth in the instant invention. IN Everaerts see particularly Summary of the invention and page 8, bottom. Leong (AN 1971:105633) and Mikhant'eva et al (AN 1981:532432) teach the formation of cinnamate diesters of diols. Jelle (6,706,408) teach a specie of the instant compositions used but no imaging occurs. In Jelle, see particularly col. 5-6; bottom of col. 8, col. 11, lines 25-55. Swan et al (5,714,360) teaches a chemical linking agent formed from di or higher functional photoactivatable compound for use in aqueous systems. See particularly Abstract and Summary of the Invention in Swan et al. Swan et al (WO 01/21326 A1) teaches more of the same.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CYNTHIA HAMILTON
PRIMARY EXAMINER

Cynthia Hamilton
Primary Examiner
Art Unit 1752

July 25, 2005